

ARIZONA



A C C E S S
M A N A G E M E N T

TAC Meeting #2

January 31, 2006

-1-



Meeting Agenda

1. Welcome / Introductions
2. Current Practice Review
 - National Perspective
 - State of Arizona
3. Vision Statement / Program Objectives
4. Workshops
 - Structure
 - Locations
 - Schedule



-2-



Introductions



-3-



State of the Practice Review

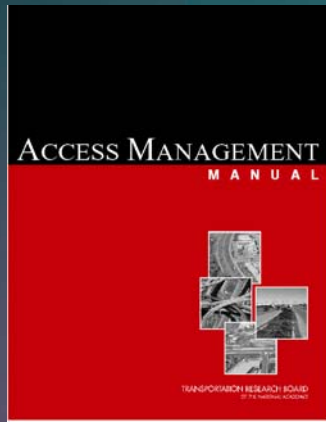
*National Best
Practices*



-4-



TRB Access Management Manual



- State of the art
- Supplemented by subsequent state and national studies



-5-



What is Access Management?

The systematic control of the location, spacing, design, and operation of:

Driveways and Street Connections

Medians

Median Openings

Turn Lanes

Traffic Signals

Interchanges



-6-



Systemwide Access Management

- Develop hierarchy of access levels
- Establish access standards for each access classification
- Assign an access classification to each roadway segment
- Adopt supporting regulations and procedures
- Apply in permitting and roadway improvement process
- Supplement with corridor AM plans and agreements



-7-



COLORADO CLASSIFICATION SYSTEM

Table of access categories, with approximate descriptions

F-W Interstate System, Freeway Facilities	
E-X Expressway, Major Bypass	
Rural	Non-Rural
R-A Regional Highway	NR-A Regional Highway
R-B Rural Highway	NR-B Arterial
	NR-C Arterial
F-R Frontage Roads (both urban and rural)	



-8-



Benefits of Access Management

- Safety
 - Reduces crashes up to 50%
 - Improves pedestrian/bicycle safety
- Mobility
 - Increases roadway capacity 23% to 45%
 - Reduces travel time and delay 40% to 60%
- Economic
 - Preserves market area for businesses
 - Improves customer safety and convenience
 - More efficient freight movement
 - Positive effect on property values



-9-

Benefits of Access Management

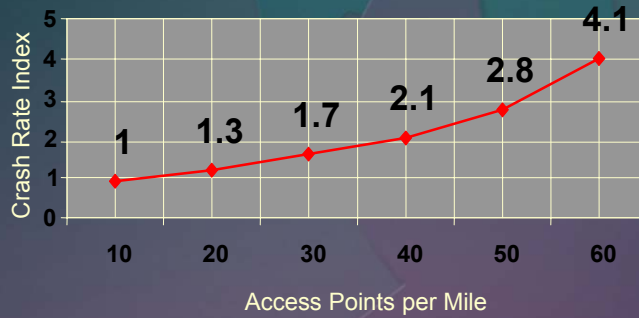
- Land Use/Aesthetic
 - More area for landscaping
 - Helps preserve community/scenic character
 - Promotes more efficient land use and site design
- Environmental
 - Reduced emissions and fuel consumption due to improved traffic progression
 - Avoids substandard access to lot splits, which can degrade environmentally sensitive areas



-10-

NHCRP Report 420 - Impacts of Access Management Techniques

Composite Crash Rate Indices



Source: NCHRP Report 420, TRB 1999



State of the Practice

Medians



Medians vs. TWLTLs

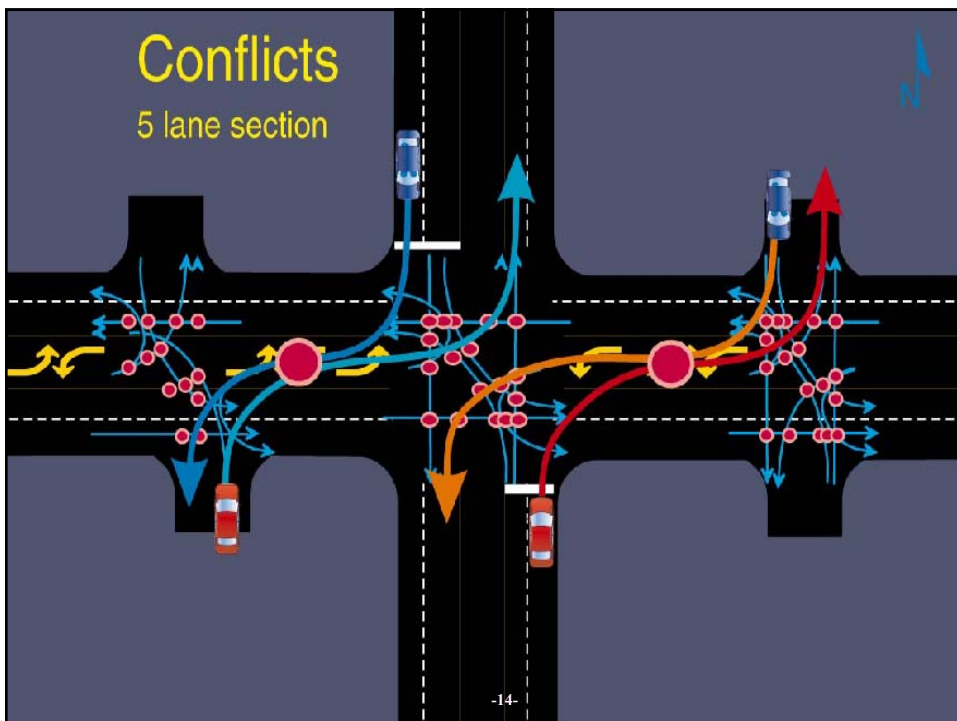
- Roads with a median are about 30% safer than those with a TWLTL



Source: NCHRP Report 420 - Impacts of Access Management Techniques



-13-



When to Use Medians



- All new multilane arterials
- Existing multilane arterials with ADT > 24,000 vpd
- Rural multilane roadways
- High crash locations or areas where left turn should be limited for safety
- Multilane roadways with high pedestrian activity



Source: Access Management Manual, TRB 2003

-15-

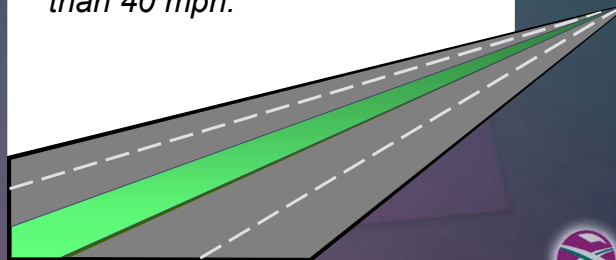


FDOT Median Policy (1993)

If less than 40 MPH:

Include sections of raised or restrictive median for enhancing vehicular and pedestrian safety.

All multilane facilities shall be designed with a raised or restrictive median except multi-lane sections with design speeds of less than 40 mph.



-16-



State of the Practice

Acquisition of Access Rights



-17-



NCHRP Synthesis 351 Access Rights

- Effective, but costly
 - Best when applied strategically and with AM code
- Openings in control line may convey unintended access rights
 - Give thought to description of openings
- Other strategies:
 - Purchase development rights on agric. lands
 - Dedication of access rights in local development process



-18-



State of the Practice

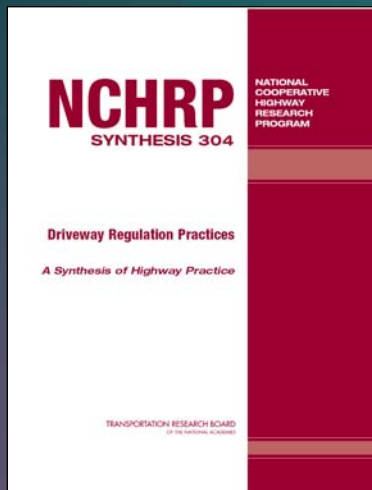
Access Permitting



-19-



NCHRP Synthesis 304



- Access permitting best practices
- Organizational structure
- Access spacing
- Variance procedures
- Fee structures



-20-



Permitting Considerations

- Allow some variation from spacing standards at an administrative level
 - Distinguish between major and minor deviations from spacing standards
 - More rigorous review for major deviations
- Establish permit conditions
 - Type and volume of traffic
 - Interim access until alternative access is obtained



-21-



Permitting Considerations

- Address when existing access must be brought into conformity, such as:
 - Substantial enlargements or improvements
 - Significant change in trip generation
 - Beyond any specific permit term or condition
 - If use is discontinued
- Needs to be clearly defined



-22-



Improving Consistency in Permitting

- Adopt clear written standards
- Establish procedures and criteria for deviation
- Provide frequent staff training and communication opportunities
- Conduct a continuing outreach program



-23-



State of the Practice

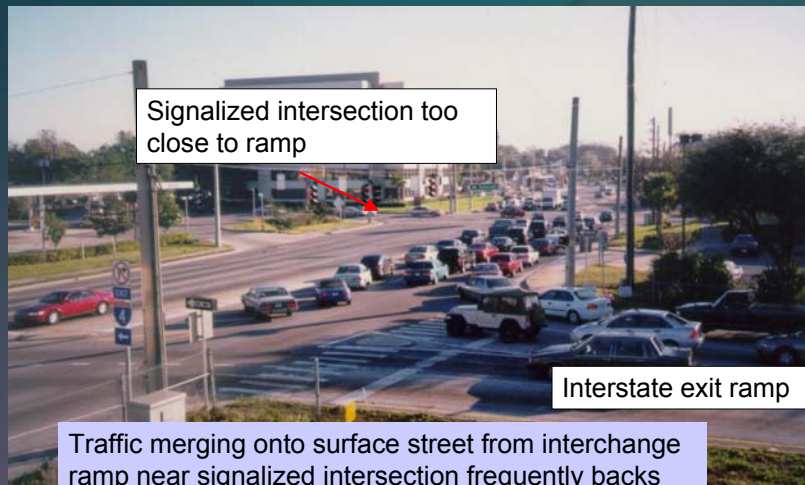
Interchange Area Access



-24-



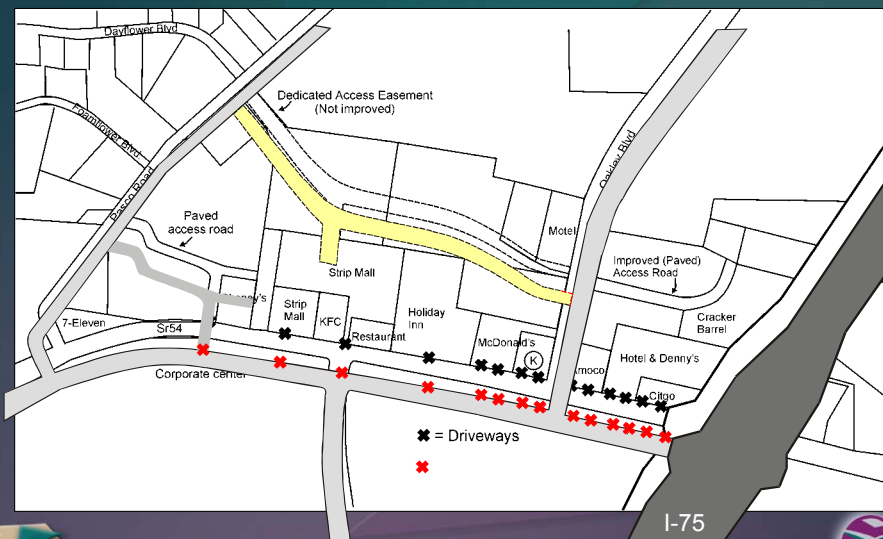
Issues in Current Practice



-25-



Access and Interchange Failure



-26-



NCHRP Synthesis 332

Access Location on Crossroads in the Vicinity of Interchanges

- Many states acquire 100 ft urban and 300 ft rural access control per AASHTO policy
- Greater spacing provides clear safety and operational benefits
- Success factors:
 - AM code
 - Coordinated land use/transportation planning
 - Public involvement
 - Acquire more access rights wherever feasible
 - Single point urban interchanges



-27-



Interchange Area Access Spacing

Suggested Minimum Access Spacing Standards
for 4-Lane Roads at Interchanges

Access Type	Area Type		
	Fully Developed Urban (35 mph)	Suburban (45 mph)	Rural (55 mph)
First Access from Off-Ramp	750	990	1,320
First Median Opening	990	1,320	1,320
First Access Before On-Ramp	990	1,320	1,320
First Major Signalized Intersection	2,640	2,640	2,640

Source: NCHRP Report 420, TRB 1999



-28-





-29-



State of the Practice

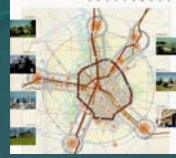
Corridor Access Management Plans



-30-



NCHRP Synthesis 289 Corridor Management



- Corridor designation and partnering
- Public involvement and visioning
- Corridor analysis
- Alternative development and selection
- Implementation plan & agreements
- Adopted plan supersedes systemwide standards
- Appropriate changes in local policy
- Secure funding for short range improvements
- Strategies for full implementation

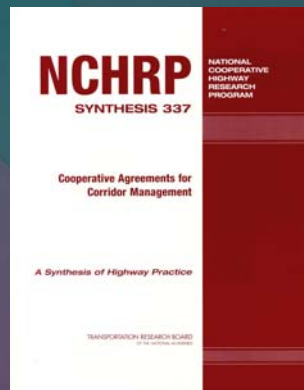


-31-



NCHRP Synthesis 337 Cooperative Agreements for Corridor Management

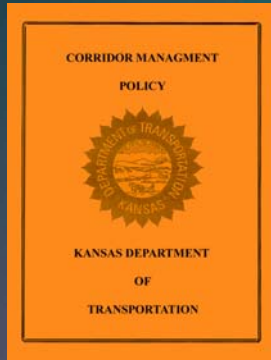
- **Integrate plan** into policies, practices and regulations
 - Joint administration
- Provide for **future updates** to the plan
- Create frequent opportunities for **educating partners**



-32-



Kansas



- Designation of high priority "Protected Routes"
- Cooperative agreements with local agencies
- Corridor master plan with access policies and concepts
- Formal adoption by each agency
- Fund for local improvements that support the plan



-33-



U.S. Highway 183, Vine Street Corridor Master Plan

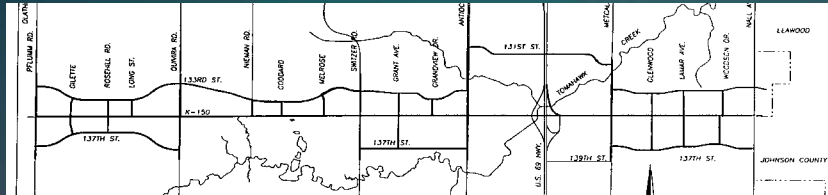
- Reverse access roads
- ROW dedicated by property owners
- Funding 2/3 KDOT and 1/3 City
 - City allowed to apply value of dedicated ROW toward their 1/3 match



-34-



135th St Access Mgt Plan



Overland Park, Kansas



-35-

New Jersey Department of Transportation



Funding and technical assistance to local governments on street network concept plans for corridor access management.



-36-

State of the Practice

Local Role and Authority



-37-



Local Access Control Powers

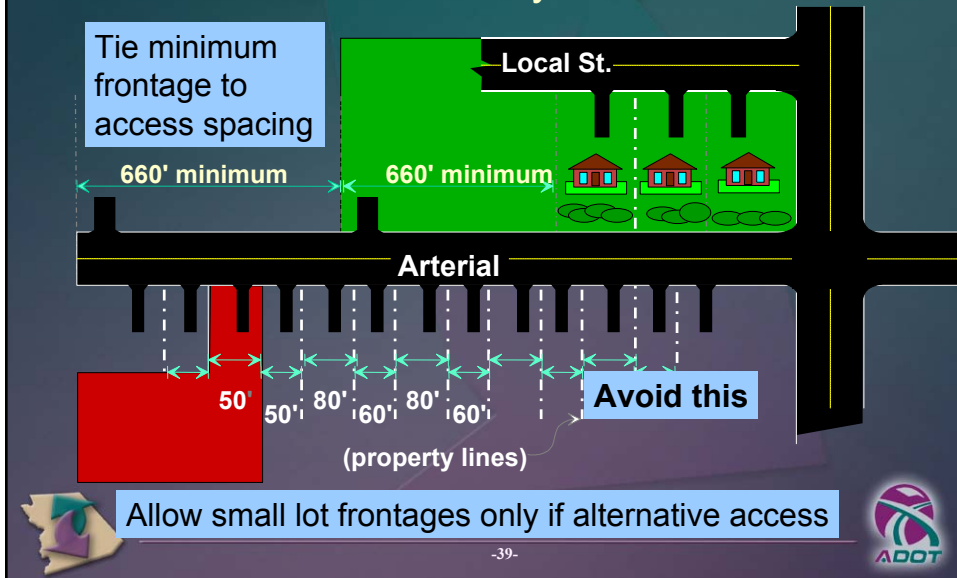
- General plans and transportation plans
 - policies and guidelines, functional classification, street networks, activity centers
- Subdivision regulations
- Zoning regulations
- Access management ordinances
- Plat and site plan review



-38-

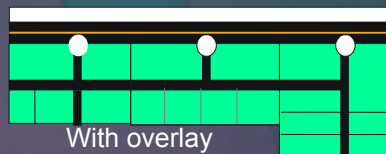
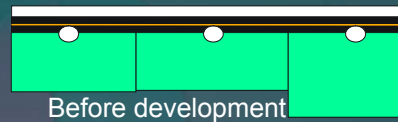


Minimum Lot Frontage US 19 Overlay District



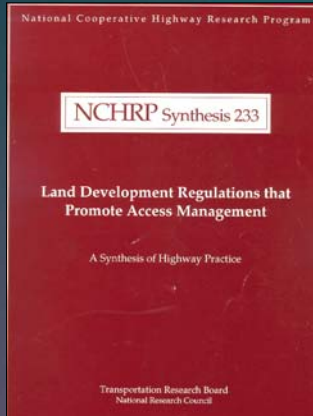
Access Management Overlay Alpine Township, MI

- Verify lot and parcel boundaries
- Permit one access point per lot or parcel
- Conditions for more access connections
- No new connections for future lots



NCHRP Synthesis 233

Land Dev. Regulations that Promote AM



- Key Issues:
 - Piecemeal implementation
 - Exemptions from subdivision regulations
 - Commercial strip zoning



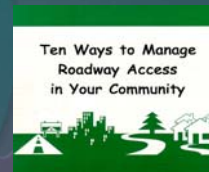
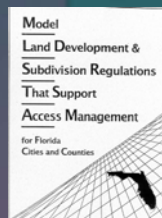
-41-



Local Outreach & Education

Florida Strategy

1. Model Code for locals
2. Corridor studies & recommendations
3. Training workshops for staff and presentations to policy makers
4. Follow up to help along the way



-42-



State of the Practice Review

ADOT Practices



-43-



ADOT Access Classification System

- No statewide access classification system
 - Controlled access segments designated “as-needed”
- Access Management Policy 12 & MoveAZ
 - Directs ADOT to develop a statewide access classification system with appropriate standards for each access class



-44-



ADOT Access Management Criteria

- Criteria dispersed across several documents
- General guidance in *Roadway Design Guidelines* and *Traffic Engineering Policies, Guidelines and Procedures*
- Lack of specific standards
 - Signal spacing; access location, number, spacing; driveway throat length, combinations of width/radius; median opening spacing and design of openings, left turn lane warrants and design



-45-



ADOT Interchange Criteria

- Interchange spacing criteria in AM Policy 12
 - 3 mi rural, 2 mi suburban, 1 mi urban
- Control extended 300 feet + beyond ramp
- ROW staff try to acquire 600 feet in rural areas
- Corridor AM plans include guidelines
 - 1000 ft + spacing between ramps and signalized crossroads; right in/out no less than 400 ft



-46-



ADOT Access Permit Requirements

- Encroachment permits required for new turnouts and driveways
- No access where access control has been legally established
- Joint driveway applications require notarized mutual agreement



-47-



Permitting Issues

- Inconsistent administration
- Insufficient resources and lack of fees
- Lack of statewide standards and deviation criteria
- Few if any conditions in permit (e.g. type and volume of traffic)
- No criteria defining change in use



-48-



Permitting Issues

- Weak enforcement
- Unpermitted turnouts and fence cuts in rural areas
- No clear interface with development review
- “Wildcat” subdivisions
 - Substandard access and street systems



-49-



ADOT Corridor Access Management Plans and Studies

2000 - 2006

- | | |
|-------------------|------------------|
| • SR 179 AM Study | • SR 74 AM Study |
| • SR 85 AM Study | • SR 64 AM Study |
| • US 93 AM Study | • SR 260 AM Plan |
| • US 93 AM Study | • SR 68 AM Plan |
| • SR 95 AM Study | • SR 89A AM Plan |



-50-



ADOT Corridor Access Management Plans

- Primarily done in context of a project
 - Implemented through roadway improvements, purchase of access control, and access roads
- Issues
 - Financial feasibility
 - Treatment of right-of-way issues
 - Process for state/local adoption and ongoing implementation (e.g. access permitting, development review, etc.)



-51-

Observations on Local Role

- Some have AM guidelines and standards
 - Considerable variation
 - Tucson/ADOT IGA
- Lot split exemptions causing access problems
 - Pima County lot split ordinance
 - AZ County Supervisors Assoc. Wildcat Lot Splitting Study
- Support and understanding for AM varies
 - Education, technical assistance, outreach needed
 - Statewide standards can form basis for improved coordination



-52-

Scottsdale Design Standards & Policy Manual

Street Type	Minimum Driveway Spacing
Local Residential/Local Collector	50 feet
Local Industrial/Local Commercial	165 feet
Minor Collector	165 feet
Major Collector	250 feet
Minor Arterial	330 feet
Major Arterial	500 feet

- Minor street access where available
- Maximum two driveways
- Requires cross access in some cases



-53-



Summary and Observations

- Strong policy framework to build upon
- Improve consistency through statewide procedures and standards, as well as training and statewide meetings for District staff
- Update and expand traffic engineering and design guidelines
- Support corridor project plans through cooperative agreements and police power strategies
- Leverage local powers through outreach, coordination, and statewide standards



-54-



Vision Statement / Program Objectives



-55-



Vision Statement

Develop a Statewide Access Management Program that provides consistency of program decisions and process while creating a partnership with local agencies to support efficient and safe operation of the State Highway System.



-56-



Program Objectives

- 1) Establish a statewide access classification system.
- 2) Develop access spacing and design standards.
- 3) Update interchange design and spacing criteria and establish minimum spacing standards.
- 4) Update ADOT roadway design guidelines and traffic engineering policies.
- 5) Assign access classifications to each state highway.
- 6) Strengthen the access permitting process.

- continued



Program Objectives, continued

- 7) Provide for a strategic approach to the acquisition of access rights.
- 8) Establish clear procedures and guidance for adoption and implementation of corridor access management plans.
- 9) Provide outreach, technical assistance, and incentives to encourage local government participation.
- 10) Develop program materials that clearly communicate the importance of access management to stakeholder groups.



Workshops



-59-



Workshop Structure

- Focus on Specific Audience
- Three Groups:
 - Elected Officials
 - Agency Staff
 - Public, including Development and Business Community
- Two-hour session with each to provide information on what is access management
 - Why it is Important
 - Overview of Program Development
 - Questions and Answers



-60-



Workshop Locations

- Need for Five Locations

Flagstaff
Phoenix
Tucson
Yuma
Kingman



-61-

Workshop Schedule

- 1st and 2nd weeks of March
- Agency Staff meeting followed the next day by a meeting with elected officials and then a public forum
- Need logistical support from each ADOT District



-62-

Next Steps

- Prepare and conduct workshops
- Build a program framework
- Define a classification system
- Access management presentation at Roads and Streets
- Schedule next TAC meeting

